

Appl. No. 10/627,492

Amdt. Dated July 6, 2006

Reply to Office Action of April 20, 2006

AMENDMENTS TO THE DRAWINGS

The attached sheet of drawings includes changes to FIG. 2. This sheet, which includes FIGS. 2 and 3, replaces original sheet including FIGS. 2 and 3. In FIG. 2, reference numeral 202-4 is replaced with reference numeral 202-N.

Attachment: Replacement Sheet (1)

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REMARKS

This is a full and timely response to the non-final Office action mailed April 20, 2006. Reexamination and reconsideration in view of the foregoing amendments and following remarks is respectfully solicited.

Claims 1-29 and 37-49 are pending in this application, with Claims 1, 15, 37, and 49 being the independent claims. Claims 1-14 have been amended, and Claims 30-36 have been canceled herein. No new matter is believed to have been added.

Objections to the Drawings

The drawings were objected to because FIG. 2 includes reference numeral 202-4 when it should include reference numeral 202-N instead. Applicants have submitted herewith a replacement drawing that includes the suggested revision.

Reconsideration and withdrawal of the drawing objection is therefore requested.

Rejections Under 35 U.S.C. § 101

Claims 1-14 were rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. Specifically, it is alleged that the claims are directed to a computer program *per se*. In response, Applicants have amended Claims 1-14 to indicate that the claims are directed to a program product including a database and a computer-readable signal bearing media bearing said database. Such claims are directed to statutory subject matter.

In view of the amendments to Claims 1-14, reconsideration and withdrawal of the § 101 rejection is requested.

Rejections Under 35 U.S.C. § 102

Claim 49 was rejected under 35 U.S.C. § 102 as allegedly being anticipated by U.S. Patent No. 6,804,664 (Hartman et al.). This rejection is respectfully traversed.

Independent Claim 49 relates to a flight management system that includes a memory, a uniquely structured navigation database that is compatible with multiple flight management systems, and recites, *inter alia*, a processor configured to generate an aircraft

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flight plan based at least in part on the navigational data stored in the navigation database.

Hartman et al. relates to a database that is structured to enable faster, more efficient queries, and discloses a geographic database 143 that includes geographic data about users. Hartman et al. discloses that the geographic data may be obtained by cross-referencing user-provided data to location data, or from a GPS or other locator system. The Office action alleges that the geographic database somehow corresponds to a navigation database that is compatible with multiple flight management systems. Moreover, the Office action alleges that obtaining a user's geographic location from a GPS or other locator system is the same as a processor configured to generate an aircraft flight plan based at least in part on the navigational data stored in the navigational database.

First of all, the geographic database disclosed in Hartman et al. is not a navigational database. Furthermore, nowhere does Hartman et al. disclose, teach, imply, hint, or even remotely suggest, that the disclosed system or any portion thereof is configured to generate an aircraft flight plan based at least in part on any data stored in any of the disclosed databases.

In view of the foregoing, reconsideration and withdrawal of the § 102 rejection is respectfully requested.

Rejections Under 35 U.S.C. § 103

Claims 1-29 and 37-48 were rejected under 35 U.S.C. § 103 as allegedly being unpatentable over U.S. Patent No. 6,879,976 (Brookler et al.) and Hartman et al. This rejection is respectfully traversed.

Independent Claim 1 relates to a computer-readable medium having a database stored thereon that is compatible with multiple end-user systems and that includes a data section having a plurality of data records, and a structure section having at least a feature mask, and recites, *inter alia*, the feature mask including data that indicates whether a particular one of the data records is compatible with one or more of the end-user systems.

Independent Claim 15 relates to a method of generating a database that is compatible with multiple end-user systems that includes generating a data section, storing

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a plurality of data records in the data section, and recites, *inter alia*, generating a feature mask that includes data that indicates whether a particular one of the stored data records is compatible with one or more of the end-user systems.

Independent Claim 37 relates to a computer system that includes a processor, memory in operable communication with the processor, and a database stored in the memory that is compatible with multiple end-user systems and that includes a data section having a plurality of data records, and a structure section having at least a feature mask, and recites, *inter alia*, the feature mask including data that indicates whether a particular one of the data records is compatible with one or more of the end-user systems.

Brookler et al. relates to a system and method of indexing data using bit vectors, and discloses a database management system having data stored therein in tables defined by a stored schema. Brookler et al. further discloses the use of a bit vector index (BVI) to augment the standard indexing scheme of a typical relational database management system. According to Brookler et al. a BVI is a collection of bit vectors (BVs) that comprise an index for a particular column in a table of the database (col. 4, ll. 62-66). More specifically, a BVI is created for each matching column pair that relates a lookup field in an indexed table to a set of values in a lookup table (col. 5, ll. 8-10). In a preferred embodiment, a BVI is an array structure, such as BVIs 303 and 304, that includes multiple entries, with each entry containing a BV and the indexed value being a pointer into the array (col. 6, ll. 10-13). Thus, each BV of a BVI identifies the records in an indexed table that correspond to one particular value in a lookup table (col. 6, ll. 18-20).

In the Office action it is alleged that Brookler et al. discloses a structure section that includes a feature mask. In support of this, the Office action recites the definition of a database schema from the Microsoft Computer Dictionary. Of course, as the ordinarily skilled artisan is readily aware, the schema of a database has nothing whatsoever to do with whether it includes a feature mask or not, but merely defines, as the definition in Microsoft Dictionary indicates, the formal description of the structure of a database. That is, the names of the tables, the names of the columns of each table, and the type and other attributes of each column. Just because a database includes a schema, which just about

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every database does, does not mean that it includes a structure section, let alone a structure section that includes a feature mask.

Nonetheless, the Office action further relies on Hartman et al. as disclosing a feature mask that includes data that indicates whether a particular one of the data records in a database data section is compatible with one or more end-user systems. Applicants, however, do not agree that Hartman et al. even remotely discloses this feature, let alone provides any suggestion or motivation for providing this feature.

Hartman et al., as was noted above, relates to a database that is structured to enable faster, more efficient queries. To do so, the data to be stored in the database is characterized as a number of questions, and each record in the database comprises bit map groups that correspond to the answers to the questions. The answers may be binary attributes, range attributes, and string attributes, depending on the question type. With this type of structure, database queries are obtained by simple bit-wise Boolean operations of the records in the database, beginning first with binary attribute matching, then range attribute matching, and finally string attribute matching. With each attribute matching operation, various of the records in the database are eliminated from the query, thus making the query more efficient (col. 8, l. 9 through col. 12, l. 11).

The Office action alleges that Hartman et al. discloses the claimed structure section and feature mask at column 9, l. 44 through col. 10, l. 28. However, what is disclosed in this section of Hartman et al. is the methodology that is employed during the binary attribute matching operation to efficiently determine whether a query profile matches a section (or chunk) of a record that is stored in a database. This clearly does not disclose, or even remotely suggest, providing a database with a structure section that includes a feature mask having data that indicates whether a particular data record is compatible with one or more end-user systems.

From the above, it is clear that both Brookler et al. and Hartman et al. disclose methods of structuring databases so that the database management system can easily and more efficiently search the data records in the database to determine whether each contains a value that matches a particular query. This is wholly inapposite to the instant invention as defined by the claims. Indeed, by including the recited structure section

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having the recited feature mask, a database access manager needs no direct knowledge of the physical representation (e.g., data layout and format) of the data records in the data section. Rather, the database access manager determines the layout and format of the data records from the data in the structure tables, before providing access to the data. Thus, the database access manager is decoupled from the data layout and format, which allows any end-user system that includes the database access manager to access the database. In addition, this decoupling aspect allows the database to be modified (e.g., tables and/or fields added/relocated/deleted) without having to update the database access manager, or other system software.

In view of the foregoing, it is submitted that independent Claims 1, 15, and 37, and dependent Claims 2-14, 16-29, and 38-48 are non-obvious. Therefore, reconsideration and withdrawal of the § 103 rejection is respectfully requested.

Conclusion

Based on the above, Claims 1-29 and 37-48 are patentable over the citations of record. The other art of record is also not understood to disclose or suggest the inventive concept of the present invention as defined by the claims.

Hence, Applicant submits that the present application is in condition for allowance. Favorable reconsideration and withdrawal of the objections and rejections set forth in the above-noted Office action, and an early Notice of Allowance are requested.

If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone the undersigned attorney at the below-listed number.

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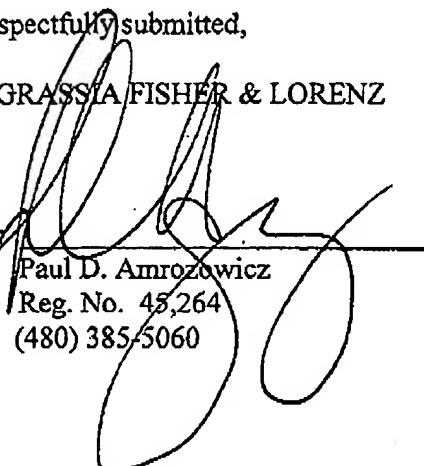
If for some reason Applicant has not paid a sufficient fee for this response, please consider this as authorization to charge Ingrassia, Fisher & Lorenz, Deposit Account No. 50-2091 for any fee which may be due.

Respectfully submitted,

INGRASSIA FISHER & LORENZ

Dated: July 6, 2006

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